

## **REMARKS**

This application was filed with 1-33 claims. Claims 4-17, 21-27, and 31-33 are objected to under 37 CFR 1.75(c) as being in improper form because of multiple dependent claiming. These claims have been canceled. New claims have been introduced in proper form. Claims 1-3, 18-20, 28-30 have been rejected under 35 USC 103(a) over Ranganath (5,471,119). These claims have been cancelled. While applicant does not concede that Claims 1-3, 18-20, 28-30 are obvious in view of Ranganath, the new claims clearly distinguish the applicant's invention over the cited art.

### **Claim Rejections - 35 U.S.C. § 103**

Claims 1-3, 18-20 and 28-30 have been rejected under 35 U.S.C. §103 based on Ranganath. While these claims have been cancelled, applicant respectfully submits that the new claims are non-obvious over Ranganath. Consequently, applicant will discuss novel and non-obvious features which render the claims allowable over the cited prior art.

As noted by the substantial authority covered in MPEP §2145, §2143.01, and the decisions of the Federal Circuit, it is improper to combine or modify references without a teaching, motivation, or suggestion for combining the references. This teaching, motivation, or suggestion must be found in either the prior art or known generally by those skilled in the art. "Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found in

the references themselves or in the knowledge generally available to one of ordinary skill in the art.” MPEP §2143.01 (*citing In re Kotzab*, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000) and *In re Fine*, 837 F.2d 1071 (Fed. Circ. 1988)). Also, as noted in MPEP §2142, §2143, and the decisions of the Federal Circuit, it is improper to use the present application as a means of suggestion for combining the prior art references. Further “[t]he level of skill in the art cannot be relied upon to provide the suggestion to combine references.” MPEP §2143.01 (*citing Al-Site Corp. v. VSI Int’l Inc.*, 174 F.2d 1308, 50 USPQ2d 1161 (Fed. Cir. 1999)).

Also, “[t]o establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art.” MPEP §2143.03 (*citing In re Royka*, 490 F.2d 981, 180 USPQ 580 (CPA 1974)). “All words in a claim must be considered in judging the patentability of that claim against the prior art.” MPEP §2143.03 (*citing In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970)).

#### Claims 34, 37, 38, 53, 54, 58, 59, 63

Claims 34, 37, 38, 53, 54, 58, 59, and 63 are all novel and non-obvious in view of Ranganath. First, claims 38, 53, 54, 58, and 59 are all dependent on allowable claims. Second, all require galvanic isolation between the light regulation circuit and the microprocessor. Galvanic isolation refers to a design technique which will separate signal currents from AC power distribution introducing stray noise currents. Basically this process will provide two separate paths for signal and noise

currents which will not allow them to mix or to mix only over short distances, thereby minimizing the effects of noise currents on the signals. Thus, galvanic isolators electrically isolate two portions of a system in order to reduce the effects of noise current flow. While this invention is not limited to low voltage environment, this design has particular advantages in such environments. Modern power supply circuits (ballasts are a species of power supply circuits) for lighting systems often are driven by relatively low voltage signals (often in the millivolts). Consequently, the reduction of noise within the system is often important for optimal operation.

Ranganath does not teach or suggest any form of galvanic isolation. In Ranganath, the microcontroller sends the output voltage directly to a voltage regulator and a frequency control circuit. Nothing in Ranganath suggests any form of isolation, much less galvanic isolation between the output voltage of the microprocessor and a circuit producing a voltage in order to drive the lighting source. As a result, Claims 34, 37, 38, 53, 54, 58, 59 and 63 are unobvious in view of Ranganath. Furthermore, claims 38, 54 and 59 specifically require the use of an optical coupler. In Ranganath, there is no suggestion of electrical isolation through the use of an optical coupler. Consequently, applicant respectfully requests allowance of the claims.

Claims 52, 57, 67 69

Claims 52, 57, 67, and 69 are all novel and unobvious in view of Ranganath. Specifically, all of these claims relate to a system with a memory unit having a time

table of commands. These commands are selected according to the time signal input from the controller.

In claim 52 and 57, the controller sends a time signal to the control unit which contains the memory unit and the corresponding timetable. Thus, claims 52 and 57 contemplate a system in which each control unit performs time energy management according to the time signal input from the controller. Ranganath does not contain any of these features. Consequently, referring specifically to claims 52 and 57, require that the controller send a time signal and that the control unit use the time signal to produce a behavioral command from the memory unit's timetable.

First, while Ranganath makes vague references to time energy management, every contemplated controller in Ranganath sends behavioral commands not time signals. Thus, Ranganath does not teach or suggest sending time signals with the controller.

Second, since the controller in Ranganath only sends behavioral commands, memory units with timetables for energy management must be contained either in the controller or some other external device outside the lighting installation. In contrast, the claim requires that the *control unit* produce behavioral commands through a received time signal. Ranganath does not suggest or teach the claimed structure. Applicant thus respectfully requests that the Examiner allow claims 52 and 57.

The control unit of Claim 67 is also not obvious in view of Ranganath. First, claim 67 depends on allowable claims. Next, Claim 67 contemplates that the control unit will receive a time signal from an outside source. The control unit contains a microprocessor and a memory unit whereupon the microprocessor *within the control unit* selects the appropriate behavioral command for the light source from the timetable. Again, the control unit in Ranganath is only designed to work with behavioral commands. Ranganath does not teach or suggest any mechanism in which the microprocessor would select a command from a timetable. Applicant thus respectfully requests allowance of Claim 67.

Finally, the controller of Claim 69 is not obvious in view of Ranganath. The controller in Ranganath is not designed to send a time signal for controlling the lighting installation. Again, Ranganath does not teach or suggest that another device in the lighting installation (other than the controller) determine the behavior of the lighting source. Applicant thus respectfully requests allowance of Claim 69.

#### Claims 35, 36, 49 and 50

Claims 35, 36, 49 and 50 are patentable over Ranganath. First, all of the claims are dependent on allowable claims. Next, Ranganath does not teach or suggest the control system of the invention. According to Ranganath at Column 6, Lines 57-63:

The integrated ballast further includes a feedback network connected between the lamps and the micro-controller. After the lamps are turned on, the feedback network returns a signal to the micro-controller which is in proportion to the lamp power. Using this feedback network, the *microcontroller* can adjust the

power to a rated value for the lamps, and use this value as a standard reference. (Emphasis added)

In contrast, the applicants, as claimed in claims 35, 36, 49 and 50, transmit power information back to the controller for an adjustment command. Thus, in contrast to Ranganath, the applicant's feedback loop can centralize the power consumption information and coordinate power transfer among all of the control units. Ranganath does not teach or suggest such a configuration. In Ranganath, the microcontroller in each individualized control unit performs the power correction. Consequently, applicant respectfully requests allowance of claims 35, 36, 49 and 50.

#### Claims 39 and 68

The examiner takes official notice that a modem is well-known and that, therefore, it would have been obvious for one of ordinary skill in the art to replace the input filter in Ranganath with the modem. Applicant respectfully disagrees. Nowhere, does the Office Action particularly identify any suggestion, teaching or motivation to combine a modem with Ranganath. While a modem is well-known, it is not well-known to use a modem in a light regulation system. The examiner fails to point to a motivation to combine the modem and the Ranganath lighting system. Also, the Office Action does not make specific findings concerning the identification of the modem, the knowledge generally available to one of ordinary skill in the art about transmitting signals in a light regulation system, the nature of the problem to be solved, or other findings to support a proper obviousness analysis. See *In re*

*Dembiczak* 50 USPQ 1614, 1618 (CAFC 1999). Consequently, applicant respectfully requests allowance of claims 39 and 68.

Claims 40-48, 55-56, 61-62 64-66

Applicant requests allowance of claims 39-48, 55-56, 61-62, 64-66 because they contain patentable subject matter and because they depend on the above-mentioned claims which are allowable. Applicant respectfully requests the right to make further distinction elucidating the reason for their patentability.

Conclusion

Accordingly, Applicant believes that all of the pending claims are in condition for allowance and respectfully requests a favorable action to that effect.

Applicant has commented on some of the distinctions between the cited references and the claims to facilitate a better understanding of the present invention. This discussion is not exhaustive of the facets of the invention, and Applicant hereby reserves the right to present additional distinctions as appropriate. Furthermore, while these remarks may employ shortened, more specific, or variant descriptions of some of the claim language, Applicant respectfully notes that these remarks are not to be used to create implied limitations in the claims and only the actual wording of the claims should be considered against these references.

Pursuant to 37 C.F.R. § 1.136(a), Applicant petitions the Commissioner to extend the time for responding to the December 15, 2005 Office Action for 3 months from March 15, 2006, to June 15, 2006. Applicant encloses herewith a check in the

amount of \$1,020 made payable to the Director of the USPTO for the petition fee.

The Commissioner is authorized to charge any deficiency or credit any overpayment associated with the filing of this Response to Deposit Account 23-0035.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Mark J. Patterson', is written over a horizontal line.

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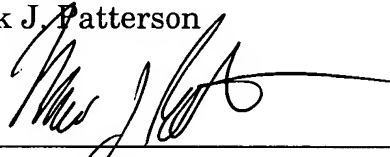
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I hereby certify that this Response and Amendment in Application Serial No.10/824,770 having a filing date of April 15, 2004 is being deposited with the United States Postal Service as first class mail in an envelope addressed to:

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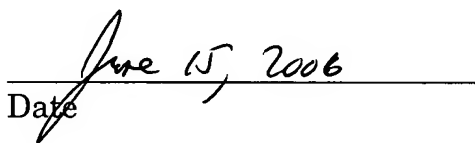
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